From: Mason, Patrick A SES USN CNR ARLINGTON VA (USA)

To: Freeman, Robert S CIV USN CNR ARLINGTON VA (USA)

Cc: Brown, Willie A CIV USN CNR ARLINGTON VA (USA); Hentchel, Kristy L CIV USN (USA)

Subject: RE: Havana again

Date: Thursday, July 2, 2020 12:40:36 PM

Bob,

ONR funded new diagnostic techniques.

ONR has little or no control on which studies these diagnostic techniques are used.

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From: Freeman, Robert S CIV USN CNR ARLINGTON VA (USA) <robert.freeman@navy.mil>

Sent: Thursday, July 2, 2020 12:24 PM

To: Mason, Patrick A SES USN CNR ARLINGTON VA (USA) con Parrick A SES USN CNR ARLINGTON VA (USA) con Parrick A SES USN CNR ARLINGTON VA (USA) con parrick

Cc: Brown, Willie A CIV USN CNR ARLINGTON VA (USA) <will.brown@navy.mil>

Subject: Havana again

Hi Dr. Mason~

FYSA. CSC discovered this recent news release from University of Pittsburg describing an ONR-funded study that developed a new diagnostic technique based on observations of Havana Embassy victims.

V/r Bob

Perplexing Havana Cases Give Way to New Diagnostic Technique (pittwire.pitt.edu)

U.S. Embassy staffers and family members who were mysteriously injured three years ago while stationed in Havana, Cuba, displayed a distinctive pattern of eye and pupil movements compared with those who suffered brain injuries of known origins, according to a new study reported in the journal Frontiers in Neurology – Neuro-Ophthalmology.

By analyzing videos taken during initial clinical evaluations, researchers from the University of Pittsburgh School of Medicine and University of Miami Miller School of Medicine found Havana embassy staffers with neurological impairments had similar changes in eye movements and pupil responses.

"The patterns of response in 19 individuals from the embassy were markedly different than those seen in a group of 17 subjects with mild traumatic brain injuries, and from 62 control subjects with

no injury," said lead author Carey Balaban, professor of otolaryngology, neurobiology, communication sciences and disorders, and bioengineering at Pitt. "The results from these tests indicated a clear difference between the Havana embassy subjects and those with concussions or other mild traumatic brain injuries."

In late 2016, more than two dozen U.S. diplomats and family members in Havana began to report sudden onset dizziness, ear pain and tinnitus. Most of the affected individuals reported hearing an unexplained noise before the symptoms began. Others reported a sensation of pressure passing through their head and abdomen.

In February 2017, Michael Hoffer, professor of otolaryngology and neurological surgery at the University of Miami Miller School of Medicine and a former military officer with security clearance, was contacted by the U.S. State Department, and 25 individuals from the U.S. Embassy were evaluated in Miami and given appropriate therapy.

Hoffer consulted with Balaban, who he has known for more than 25 years, about the strategy for evaluation of their complaints. The team's findings from standard clinical tests were published in Laryngoscope Investigative Otolaryngology in 2018.

Under Balaban's direction, the collaborative research team conducted a new examination of patterns of convergence, when the eyes focus separately on an approaching object, and divergence, when an object moves away, as well as changes in pupil size—constricting with convergence and dilating with divergence. This research effort was supported by the Office of Naval Research.

Since 2017, dozens of individuals, both inside and outside the diplomatic community, have come forward with similar reported symptoms, said Balaban. Having standardized diagnostic criteria can address these individuals' concerns, added Hoffer.

"We now have an objective neurological screening platform that could be used in an overseas clinic or deployed to the field should a similar incident occur in the future," Hoffer said. "An accurate evaluation of an individual's symptoms provides the foundation for an effective treatment response."

URL:

https://www.pittwire.pitt.edu/news/perplexing-havana-cases-give-way-new-diagnostic-technique?qt-latest_popular=1